

Exploring the History of Aq-Qalih in Khorasan: Insights from the Ilkhanid's Periodic Travels and the Urban Structures of the Yuan Era

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Abstract

The historical fortress of Aq-Qalih, a large and little-known structure in the Juvayn Plain of northern Khorasan, is tentatively attributed to the Mongol Ilkhanid period based on limited prior studies. However, extant Ilkhanid -period documents offer no confirmation of its existence. Therefore, the hypothesis of Ilkhanid construction relies solely on archaeological evidence and the dated inscription of the Aq-Qalih Mosque. This research seeks to establish the significance of Aq-Qalih as a midway settlement along Ilkhanid travel routes in northern Khorasan, utilizing historical documents and GIS analysis. Further, by comparing Aq-Qalih's structure with contemporaneous structures in Mongol-influenced regions of China and Iran, this study assesses the hypothesis of Ilkhanid construction. The findings indicate Aq-Qalih's strategic location along major Ilkhanid travel routes, with the Ilkhans' and their successors' annual visits increasing the likelihood of a midway settlement. Moreover, structural comparisons with Chinese examples like Shangdu, Daidu, and Yingchang, as well as Sultaniyya in Iran, reveal significant similarities, bolstering the hypothesis of Ilkhanid-era construction.

Keywords: Ilkhanid-era, Yuan Era, periodic Travel, Urban Planning, GIS, Khorasan, China.



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Introduction

North of Sabzevar and south of Esfarayen, in the Juvayn Plain, lie the extensive remains of a structure known as Aq-Qalih (meaning “white castle” in Turkish). The site comprises two connected enclosures. The larger, northern enclosure measures approximately 600 by 700 meters, while the smaller, southern enclosure (approximately 168 by 173 meters) appears to be a citadel (Kohan Diz). Within the larger enclosure, only a mosque remains standing. This mosque bears a stucco inscription dating its construction to 712 AH (1312 AD)¹. Limited archaeological excavations from the 1980s within the castle grounds suggest initial settlement around the same period (late 13th/early 14th centuries), coinciding with the Mongol Ilkhanid rule in Iran (Bakhtiyari-Shahri, 1996: 5-8; Labbaf Khaniki, 1988: 3).

Despite the mosque’s construction inscription and archaeological evidence suggesting an Ilkhanid-era origin for Aq-Qalih, no contemporary documentary evidence supports this hypothesis. Ilkhanid-era court chronicles, geographical texts, and travelogues even those written subsequently make no mention of “Aq-Qalih” or a comparable large fortress in the Juvayn region. This documentary silence persists until the late Afsharid (1736-1796) and early Qajar (1796-1925) periods, where chronicles first mention “Aq-Qalih” and a fortress in the area, citing rebellions against Qajar rule (Etimad al-Saltanih, 1988: 2297).

The discrepancy between historical documents and archaeological evidence creates significant uncertainty regarding Aq-Qalih’s construction date. This conflict raises the possibility that the structure, while extant today, was not entirely constructed during the Ilkhanid-era but perhaps, based on available documents, at the end of the Afsharid control of Khorasan, built upon earlier Ilkhanid-era foundations. This research re-examines Ilkhanid-era documents to assess the likelihood of a substantial settlement in this area during that time. Furthermore, it aims to evaluate the possibility of Ilkhanid construction by comparing Aq-Qalih’s structure with contemporary structures in other Mongol-ruled regions.

This article addresses the following key questions: 1. What was the significance of the Juvayn region and Aq-Qalih’s location during the Ilkhanid-era? 2. How did the structure and function of Aq-Qalih compare to other cities and settlements built during the Ilkhanid and Mongol eras?

This research will address the aforementioned questions in two sections. The first section assesses the significance of the Juvayn Plain and Aq-Qalih’s location during the Ilkhanid-era by examining the periodic travel routes of the Ilkhans and their successors in Khorasan. The second section analyzes Aq-Qalih’s structure and function, comparing it to contemporary Ilkhanid-era cities in Iran and Yuan Dynasty-era cities in China. This comparative analysis will contribute to determining Aq-Qalih’s construction period.

Research Method: This research was conducted in two separate phases. In the first phase, the routes of the Ilkhanid’s periodic movements in Khorasan were examined

with the aim of determining the location of the Aq-Qalih site along these routes. During this phase, important chronicles written during and after the Ilkhanid-era were analyzed to gain a proper understanding of the paths taken. The most significant works in this category include “Jami’ al-Tawarikh”, “Tarikh-i Oljeytu”, “Tarikh-i Habib al-Siyar”, and “Matla-i sa’dayn wa majma-i Bahrayn”. Additionally, to identify the place names mentioned in these chronicles that cannot be clearly traced in the current geography of Iran, references were made to information contained in geographical texts such as “Nuzhat al-Qulub”, “Geography of Hafiz-i Abro Bakhsh-i Khorasan”, “Mira’t al-Boldan”, and other related geographical works, as well as travelogues. Finally, the information obtained from this survey was evaluated with the help of GIS software to achieve the optimal route and determine the position of Aq-Qalih along this route. In the second phase, the structure of Aq-Qalih was re-studied based on existing reports and new field surveys. The results of these studies were compared analytically with the latest findings from the study of urban structures built during the same period as Aq-Qalih in areas under Mongol influence in the 13th and 14th centuries.

Research Background

The report presented by Labbaf Khaniki (1988) on speculation in the area of Aq-Qalih can be considered the first study conducted on the history of this castle. The results of this study indicate that residential areas were located only in the southern part of the fortress, with settlement in this area beginning during the Ilkhanid-era and being abandoned after the fall of the Ilkhanids until the Safavid period. Following a brief period of development in the Safavid era, this part of the castle remained uninhabited until the early Qajar period and has received renewed attention since the beginning of this era. Subsequently, Bakhtiyari-Shahri (1996), in his report aimed at recording the site of Aq-Qalih, restated Labbaf Khaniki’s findings while also studying the remains of the Aq-Qalih mosque and presenting several plans depicting the current state of the castle and its mosque. In two articles examining urban development during the Ilkhanid-era, Isfahanian and Khazaeli (2002; 2003) mentioned Aq-Qalih as a city from this period that utilized a rectangular plan in its construction, similar to other cities of that era. Abdollahzadeh Sani (1393), in his speculative report on the Aq-Qalih Mosque, also aligned the date of construction of the mosque with that mentioned in the inscription. Kavian et al. (2016) conducted a study dedicated to examining the structure of Aq-Qalih, presenting several new maps of the current location of the complex and comparing its structure with other similar castles in Iran, such as Arg-i Bam. However, their research did not add anything new to previous studies. Hatef Naiemi (2019), in her doctoral dissertation focused on cultural relations between Iran and China, was the first to mention the possibility of foreign cultural influence in the construction of Aq-Qalih. While briefly introducing Aq-Qalih, she compared its structure with that of the Sultaniyya Citadel, built during Öljaitü’s reign, based on previous reports. Although she did not explicitly state in her treatise that

there might be similarities between the structures of Aq-Qalih and cities from the Turkic and Mongol empires on the Mongolian plateau, placing an aerial image of Aq-Qalih alongside that of the ancient fortress of “Karabalgasun” in central Mongolia clearly suggests this similarity.

The position of Aq-Qaleh in the periodic travels of the Ilkhans in Khorasan

During the 13th and 14th centuries, Khorasan was regarded as one of the most important provinces of Iran, playing a significant role in the political relations among the ruling dynasties on the Iranian plateau. This region, along Transoxiana, was one of the first areas invaded by the Mongols in the early 13th century (Juvayni, 2008: 172-193). After the Mongols took control of parts of Iran until the establishment of the Ilkhanid in 1256, the province of Khorasan and the city of Tus were recognized as the center of Mongol command in Iran (Juvayni, 2008: 529-540). Following the rise of the Mongol Ilkhanid dynasty, although northwest Iran particularly the provinces of Azerbaijan was chosen as the main seat of these rulers, this did not diminish the importance of Khorasan in their eyes. Many Ilkhans continued to visit Khorasan during their periodic travels. More importantly, it was acknowledged that from the onset of Abaqa Khan's reign (1265-1282 AD), these provinces served as the seat of the successor government of the Ilkhans. Arghun, Ghazan, Öljaitü, and finally Abu Sa'id were all designated by the Ilkhan as rulers of Khorasan before ascending to the throne (Rashid al-Din, 1994: 1139-1146; 1217-1243; Mirkhwand, 2006: 4260; 4318). These rulers, viewed as future Ilkhans, were committed to undertaking periodic journeys throughout their territories, similar to the seasonal travels of their Mongol ancestors. The purpose of these journeys was not only to adhere to the custom of avoiding permanent settlement but also to monitor the security of their regions and safeguard the trade routes that were vital arteries for the Ilkhanid government (Melville, 1999; Atwood, 2015).

The destinations of the Mongol Khans on these journeys were numerous winter and summer camps located in different parts of the lands under their influence. It can be inferred from the study of sources that over the years, based on the goals of the periodic trips undertaken by the Ilkhans, they always had several important seasonal destinations in the province of Khorasan in mind. The most important of these destinations, based on historical sources, are: Soltan Dovin, Nishapur, Kalpush, Khabushan, Radakan, and Merv. In addition to these destinations, the Ilkhans stopped at several settlements along the way during their periodic travels. The duration of these stops varied depending on the conditions and location, with some stopping for more than a month at these midway settlements, and in others for no more than a day. The most important of these midway settlements mentioned in the sources are: Kushk-i Morad, Shahrak-i Nou, Qara teppeh in Sarakhs, Esfarayen, Jajarm (Arghian), Chinashak, and Samalqan. Presented in Table 1 are the locations of the various seasonal and midway destinations of the Ilkhanids. The area of these residences is also indicated on map number one.

Table 1: The locations of seasonal and midway destinations of the Ilkhanids (Etimad al-Saltanih, 1988: 1558; 2259; Rashid al-Din, 1994: 1064, 1079, 1139, 1211, 1217, 1220-1223, 1226-1241, 1243, 1245, 1241, 1179, 1218, 1211-1224; Khwandamir, 2001: 141; Mirkhwand, 2006: 4102, 4318, 4324; Le Strange, 1905: 418-419; Rabino, 1924: 79, 85, 162; Mustawfi, 2019: 55; Kashani, 1969: 154; Samarkandi, 2004: 22; Heravi, 2006: 311, 397; Khafi, 2007: 334)

Place name	Usage Type	Today's location	The Ilkhans who camped there
Radakan	Summer settlement	It was located in the present-day location of Radakan County, south of Quchan and northwest of Mashhad.	Hulegu, Abaqa, Ghazan, Abu Sa'id
Kalpush	Summer settlement	Chaman-i Kalpush is located north of Jajarm. Etimad al-Saltanih has mentioned the location of Kalpoosh as two miles north of Nardin. Similarly, Rabino has introduced the location of Nardin on the route from Astarabad to Jajarm.	Arghun, Ahmed, Ghazan
Khabushan	Summer settlement	It was located at the current location of the modern-day city of Quchan.	Hulegu, Ahmed, Arghun, Ghazan
Merv	Winter settlement	Its remains are located near present-day Mari in Turkmenistan.	Abaqa, Ghazan
Soltan Dovin	Winter settlement	Rabino has shown its approximate location to the west of the present-day site of Turang Teppeh and northeast of Fujerd.	Ghazan, Öljaitü, Abu Sa'id
Nishapur	Winter settlement	It was located within the present-day city of Nishapur, and the camps were probably set up in a place called Mo'ayedi, which was located near Nishapur.	Abaqa, Ghazan
Chinashak	Midway settlement	Chinashak was the name of a castle between Astarabad (present-day Gorgan) and Jurjan (Gonbad-i Kavus). Today, there is a village with this name in this area. Rabino has placed Chinashak in the middle of the road from Astarabad to Jajarm.	Ghazan
Jajarm (Arghian)	Midway settlement	It was located west of Juvayn and on the border of Qumis province. Jajarm was also called Arghian. This city was located on the road from Juvayn to Astarabad.	Ghazan
Shahrak-i Nou	Midway settlement	Rabino has placed the remains of the Shahrak-i Nou somewhere at the present-day site of Shaqal Teppeh, 14 miles from Gonbad-i Kavus.	Abaqa, Ghazan
Qara teppeh	Midway settlement	Its location is unknown, but it was probably located near the modern-day city of Sarakhs on the border of Iran and Turkmenistan.	Abaqa, Arghun, Ghazan, Abu Sa'id
Kushk-i Morad	Midway settlement	Its exact location remains uncertain. It is identified as Shirkuh in some sources, while others refer to it as Shotorkuh. It is likely situated along the route between Esfarayen and Khabushan or between Samalqan and Khabushan. Its approximate location can be traced to the vicinity of Shirvan.	Ghazan, Abu Sa'id
Samalqan	Midway settlement	It was probably located somewhere around the cities of Manch and Samalqan in northern Khorasan.	Ghazan
Esfarayen	Midway settlement	At the present-day location of the city of Esfarayen, north of Nishapur.	Amed, Ghazan

Based on the long years that Khorasan served as the seat of rule for the successors of the Ilkhanid, one would expect that a substantial volume of reports would have survived regarding their periodic travels in this region. However, the reports available on this subject are very few, limited primarily to the reign of Abaqa, the succession of

Ghazan, and his rule in Khorasan, along with a few accounts concerning Sultan Ahmed Tekuder and Abu Sa'id. Nevertheless, based on these limited sources, we can assess the importance of the Juvayn region and the location of Aq-Qalih in this plain. Additionally, due to the repetitive nature of the destinations and routes utilized by the Ilkhans in Khorasan, there is hope that the results of these studies will align with the years for which there is no documentation.

The following is a list of the periodic and warlike journeys of the Ilkhans and their successors in Khorasan, year by year. This list, extracted from a review and comparison of several chronicles from the Ilkhanid period and beyond, is limited to journeys that are expected to have included the Juvayn and Aq-Qalih regions.

1. Abaqa's journey in 1267 to the Gorgan (Jorjan) and Soltan Dovin regions, followed by his movement from that region towards Sarakhs (Rashid al-Din, 1994: 1064; Banakati, 1969: 428; Khafi, 2007: 336).

2. Abaqa's journey in 1270 from Qumis to Chaman-i Radakan (Rashid al-Din, 1994: 1079-1081; Mirkhwand, 2006: 4102; Banakati, 1969: 429).

3. Abaqa's journey in 1280 from Damghan to Bastam, then moving towards Shahrak-i Nou and subsequently towards Radakan (Rashid al-Din, 1994: 1210-1212).

4. Ahmed Tekuder's journey in 1284 from Kharagan to Kalpush, then moving towards Khabushan, returning to the vicinity of Esfarayen and passing through Jurbad (there is a village called Jurbad in this area today, located between Aq-Qalih and Jajarm), staying in Kalpush before returning to the vicinity of Esfarayen and then moving towards Qumis (Rashid al-Din, 1994: 1138-1144).

5. Ghazan's journey in 1289 from Nishapur via the Kalpush route towards Shahrak-i Nou, then stopping near Gorgan (Rashid al-Din, 1994: 1219-1220; Khwandamir, 2001: 141).

6. Ghazan's journey in 1289 from Radakan to Juvayn, stopping at the village of Zirabad (this village is located northeast of Aq-Qalih today), then moving towards Jajarm and stopping at Kalpush (Rashid al-Din, 1994: 1220-1225).

7. Ghazan's journey in 1290 from Tus to Esfarayen, then to Jurbad. After that, he moved to Jajarm and then Bastam (Rashid al-Din, 1994: 1227-1229; Khwandamir, 2001: 141).

8. Ghazan's journey in 1294 from Mo'ayedi in Nishapur to Gorgan (Jorjan) and his stay in Soltan Dovin (Rashid al-Din, 1994: 1239-1241; Khwandamir, 2001: 142).

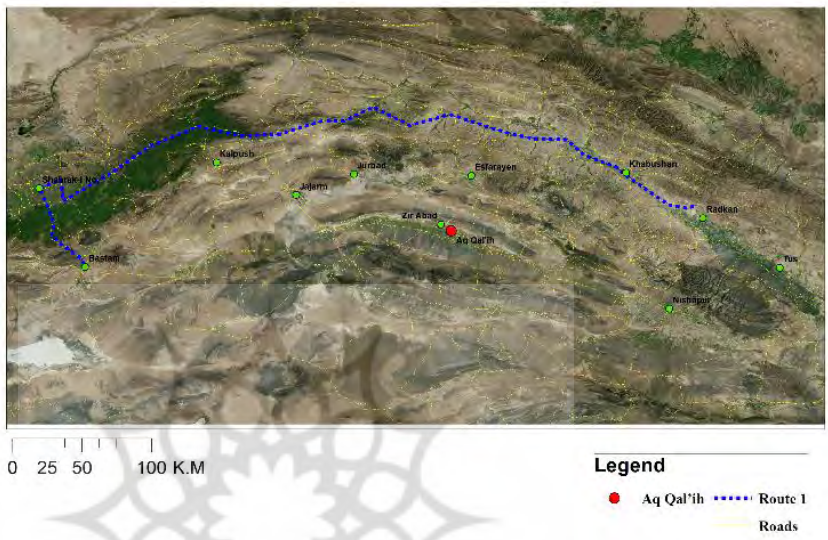
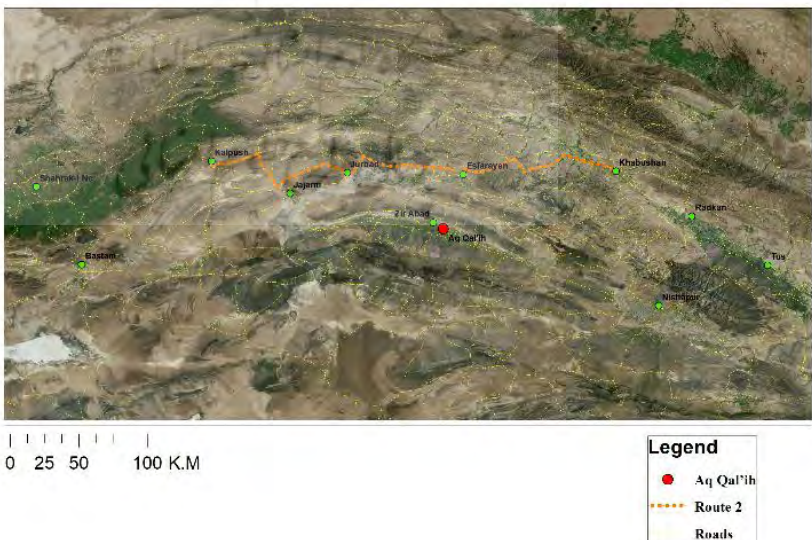
9. Abu Sa'id's journey in 1313 from Kushk-i Morad (probably near Shirvan) to Soltan Dovin (Mirkhwand, 2006: 4318; Samarkandi, 2004: 22).

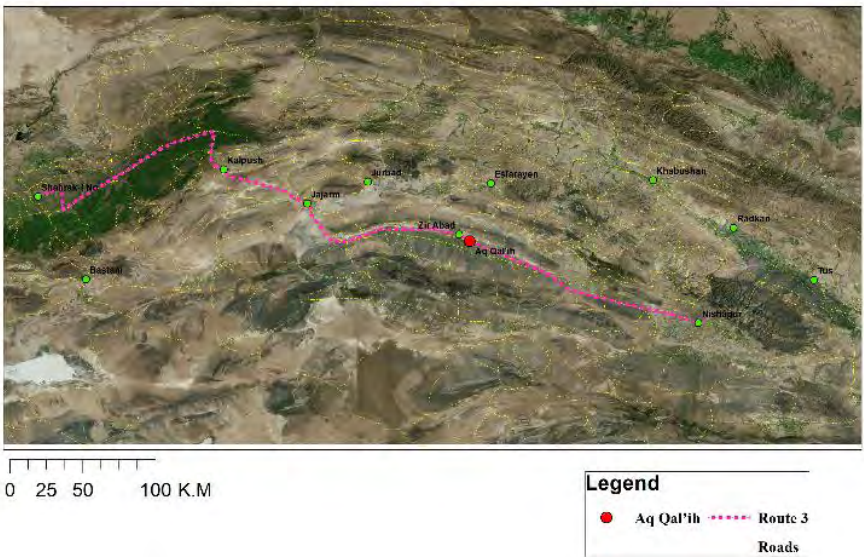
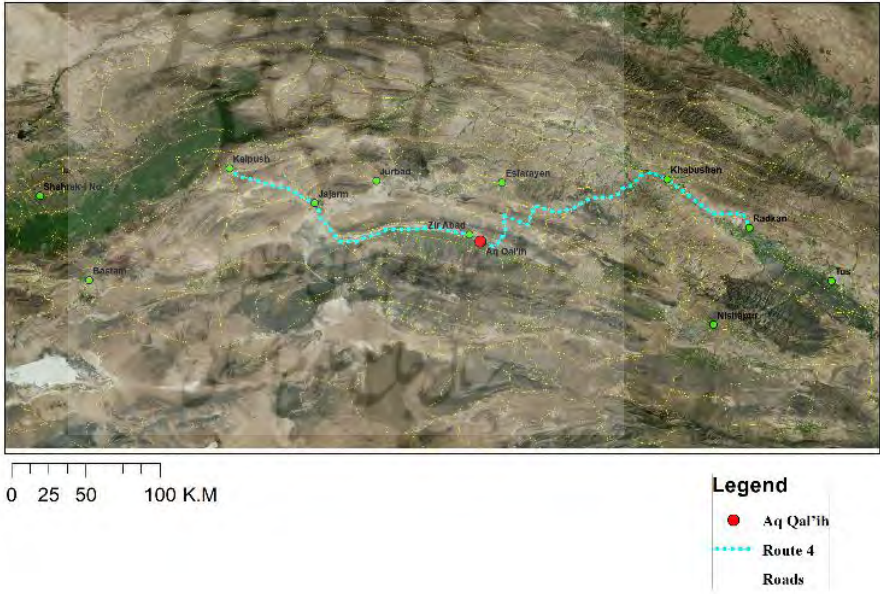
Analysis Results with ArcGIS Software

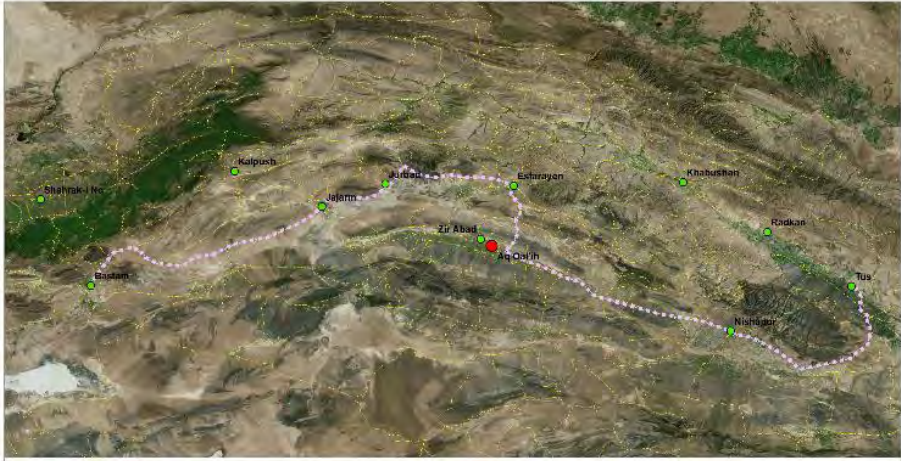
Of these 9 trips, information from 5 trips could be analyzed using ArcGIS software. This information includes points of origin, destination, points of passage along the way that were mentioned in the sources, as well as the types of possible routes in the region.

When entering this data, the current location information of Aq-Qalih was not used as fixed data. The purpose of this analysis was to determine the least-cost paths (LCPs) between these points in order to assess their degree of compliance with the location of Aq-Qalih (Table 2).

Table 2: Trip analysis using Arc GIS software (Authors, 2024).

Year of travel/Description	Image analyzed by Arc GIS software
Abaqa's journey in 1280	
Description	The main route taken on this journey was from the northern slopes of the Alborz Mountains, passing through Samalghan, the present-day areas of Shirvan and Khabushan, and leading to Radakan. This route had no connection with the Juvayn Plain and the Aq-Qalih area.
Ahmed Tekuder's journey in 1284	
Description	This journey was from Khabushan to Kalpush. The royal ordu probably used a short northern route on this journey, likely following the path through the northern parts of the Juvayn Plain. However, given the range of possible routes, it can be assumed that the ordu passed near Aq-Qalih.

<p>Ghazan's journey in 1289</p>	
<p>Description</p>	<p>This journey was from Nishapur to Shahrak-i Nou. The route of this journey definitely passed through the plain of Juvayn, as the royal ordu traversed the vicinity of Aq-Qalih to the northwest and entered Shahrak-i Nou via the road from the village of Zirabad, after passing through Jajarm and Kalpush.</p>
<p>Ghazan's journey in 1289</p>	
<p>Description</p>	<p>This journey was from Radakan to Kalpush. The royal ordu, while passing through Khabushan, entered the plain of Juvayn via the northern road, and after passing through the Aq-Qalih area, reached Kalpush through the northwestern road, after traversing Zirabad and Jajarm.</p>

<p>Ghazan's journey in 1290</p>	
<p>Description</p>	<p>In this journey, which began in Tus and headed towards Bastam, the royal ordu crossed the route of the Juvayn Plain and, passing through the vicinity of Aq-Qalih, reached Bastam after passing through Jurbad and Jajarm.</p>

Based on these analyses, it can be assumed that the route from the northern regions of Iran (on the shores of the Caspian Sea) to northern Khorasan during the Ilkhanid-era was primarily based on two main roads. The first road connected the wintering areas located southeast of the Caspian Sea to Khabushan and Radakan via a route that passed north of the Alborz foothills, traversing through Samalghan and Shirvan. Consequently, among the journeys mentioned in the previous section, it can be inferred that the royal ordu mainly utilized this transit route in journeys 1, 2, and 3, which date back to the early Ilkhanid-era. This analysis is supported by the fact that none of the travel reports mentioned indicate passage through areas south of the Alborz Mountains or the Juvayn Plain. The second road passed through the southern foothills of the Alborz Mountains and through the Juvayn Plain. This route, which primarily utilized the Jajarm-Kalpush road to connect to the Caspian Sea plains, was situated along both routes to Nishapur and also provided access to Khabushan and Radakan, important cities in northern Khorasan. Based on this information, among the trips mentioned in the previous section, it can be assumed that the royal ordu mainly used this transit route in trips 4, 5, 6, 7, and 8, which pertain to the second half of the Ilkhanid-era.

Based on these results, it can be assumed that the route passing through the southern part of the Alborz foothills was located near the area where the present-day remains of Aq-Qalih are found. This route, one of two main roads connecting the wintering areas of the southeastern Caspian plain to the summering areas of northern Khorasan, was reportedly considered and used during the second half of Ilkhanid rule.

Examination of the Structure of Aq-Qalih

This complex consists of two rectangular enclosures, with the smaller enclosure attached to the walls of the larger enclosure. The area is oriented north-south, inclined about 20 degrees to the northeast. The walls of the enclosure are approximately 7 meters thick, with four large towers at the four corners completing its perimeter. In addition, there are twenty-three towers along the walls, including seven towers along each of the eastern and western walls, seven towers along the northern wall, and two towers along the southern wall. The three gates located on the northern, eastern, and western sides of the enclosure are situated just inside the central circular towers, while the fourth gate, which leads to the citadel, is designed with two towers on either side.

The large enclosure is bisected, with the northern half largely undeveloped and the southern half densely built. The Great Mosque of Aq-Qalih, situated at the northern end of the southern half, is a recently restored rectangular structure oriented east-west, slightly inclined towards the Qibla. Its long ivan, flanked by two minarets, resembles late Ilkhanid mosques, particularly the Varamin Grand Mosque. Behind the ivan is the mosque's dome, bearing a stucco inscription dating its construction to 712 AH. This single-shell dome (gonbad-i tak pusteh) rests on four squinches (torombek), echoing the Varamin Grand Mosque. Two sanctuaries, each with three-aisled, high-vaulted interiors and domical ceilings (kolonbu), flank the dome. The presence or absence of a courtyard is unclear; however, the lack of remaining ivans, typically located on the north side, suggests a courtyardless design, possibly a unique feature for a single-ivan mosque of this period, warranting consideration given the Khorasan climate. Unlike the mosque, the remaining structures in the southern half are aligned with the enclosure walls. Aerial photographs reveal a regular arrangement of walls, courtyards, alleys, and a large square before the citadel entrance, indicative of a planned urban layout.

In contrast to the southern half, the northern half remains undeveloped and devoid of structures. Borehole data corroborates the absence of construction in this area (Labaf Khaniki, 1988: 3). The aqueduct (qanat) entering through the northern gate and bisecting this section appears post-Ilkhanid (Bakhtiyari-Shahri, 1996). A large, recently constructed pit in the northeast currently serves as a wrestling arena, a common feature in the region.

Attached to the southern walls of the large fence is a smaller enclosure known as the Aq-Qalih Citadel. Similar to the larger fence, the citadel features four large towers and six turrets at its corners, enhancing its defensive capabilities. The citadel has a single gate located on the north side, which opens into the main enclosure. In front of this gate lies a vast square in the southern part of the fence, serving as an entrance space. The remains of structures within the citadel are more clearly discernible than those in the southern section of the main enclosure, suggesting that the citadel may be a later construction. The entrance to the citadel is marked by a vestibule, resembling the caravanserais of the Safavid period, consisting of a corridor flanked by cells on both sides. On the western

side, remnants of three buildings are visible within the central courtyard, surrounded by additional rooms. Given the citadel's architectural design, the geometric differences in its towers compared to those of the main fence, and the relative stability of its internal structures to this day, it can be inferred that the citadel was built after the fence or that it underwent renovation and reuse in more recent periods. If this hypothesis holds true, it may suggest that the Aq-Qalih fence referred to in Qajar period reports corresponds to this citadel, which was constructed or renovated during the late Afsharid period, while the large fence structure with its thick walls likely served a supportive role (Fig. 1).

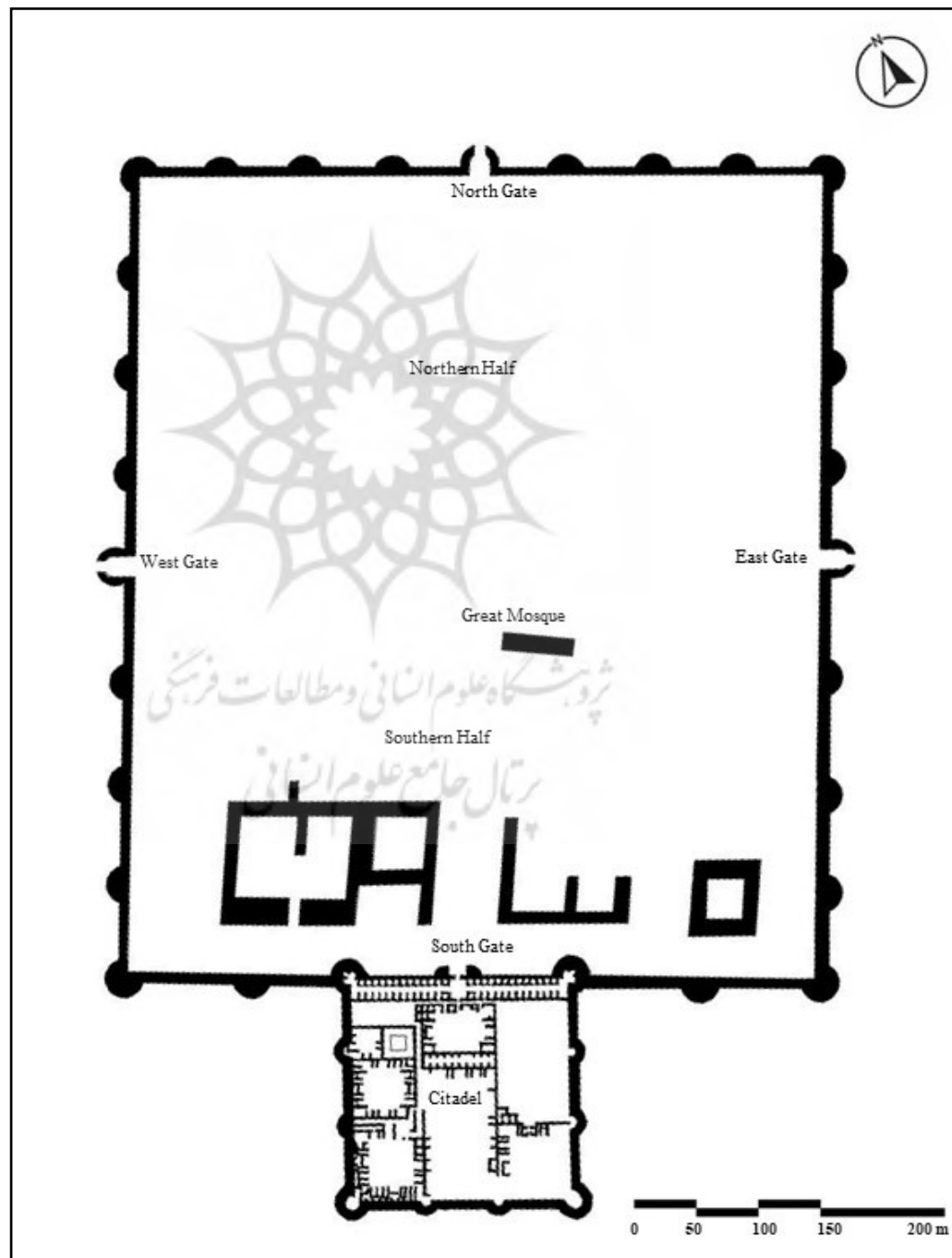


Fig. 1: Plan of Aq-Qalih (Authors, 2024).

The Structure of Cities Contemporary to Aq-Qalih

To analyze and evaluate the structure of Aq-Qalih and determine its construction timeframe, this section will briefly introduce the main structures of four cities established during the Mongol domination of Asia, presented in chronological order of their construction. The focus will be on characteristics relevant for comparison. These case studies include cities built by Mongol emperors on the Mongolian Plateau and in China. Additionally, the city of Sultaniyya is included as a prominent example from the Ilkhanid-era.

Karakorum: This city can be considered the first official residence of the Mongol emperors, constructed under the orders of Ögedei (1229-1241) and established as their first capital in 1235 at the heart of the Mongolian Plateau along the Orkhon River (Bemmann and Reichert, 2021). Karakorum consists of two distinct areas enclosed by walls. The first area, shaped like an irregular rectangle, was the main part of Karakorum. This section is oriented north-south and is tilted approximately 20 degrees to the northeast. The city featured four gates corresponding to the cardinal directions, with streets leading from each gate to the city center, effectively dividing the city into four sections (Rogers et al., 2005: 813). Buildings flanked these streets, and recent excavations suggest that they housed industrial workshops within Karakorum (Pohl, 2007: 507; Pohl et al., 2012: 49-50). The city's Buddhist temple was situated on its southwestern side (Bemmann and Reichert, 2021: 7). Another notable area in the northern part of the city is a large space devoid of any visible structures. The lack of cultural layers in this expanse, along with its coverage by river sand, suggests that it may have been utilized for temporary structures or tents for soldiers affiliated with the Khan (Bemmann et al., 2022: 165). The second area, smaller than the main city and designed as a regular rectangle, is known as the Royal Citadel. This area is located just south of the primary city and is connected to its southern gate by a street (Hüttel and Erdenebat, 2010: 12-15). Additionally, remnants of a cemetery have been found on the northern side of the main city walls, which, based on the shape of the graves and burial methods, may have served as the burial site for Muslims residing in the city (Bayar and Voitov, 2010: 289) (Fig. 2).

Shangdu: The city of Shangdu, or the Northern Capital, was established during the reign of Möngke Khan (1251–1258) and at the behest of his brother and successor Kublai Khan (1260-1294) in 1256 in northern China and the Inner Mongolia region. Initially referred to as Kaiping Fu in historical sources, the city's name was changed to Shangdu following Kublai Khan's ascension to power in 1260 (Steinhardt, 1999: 151). Like other Chinese cities of that era, Shangdu was constructed with three concentric walls. The outer wall, known as Da cheng, surrounded the city, while the middle walls, called Huang cheng, were connected to the southeastern and eastern sections of the outer wall. The innermost wall, referred to as Gong cheng, was situated in the northern third of the middle wall and defined the city's interior (Steinhardt, 1988: 63).

The outer wall, known as Da cheng, measures approximately 2220 x 2220 meters and is designed as a regular quadrangle, with its sides aligned to the cardinal directions.

This wall featured one gate on the western side and two gates on each of the other sides. The city was divided into four sections, or Guan. The eastern, western, and southern Guans were situated in the area between the western walls of the middle and outer walls. The East Guan, positioned between the West Guan and the western front of the middle wall, was designated for official residences. The West Guan, located between the East Guan and the western wall of the outer wall, housed markets, government offices, and residential neighborhoods. The South Guan, situated south of the East and West Guans, contained the city's restaurants and teahouses. The largest section was the North Guan, which occupied the expansive area between the northern walls of the middle and outer enclosures (Steinhardt, 2024: 29). Steinhardt suggests that this area served as a military settlement as well as the city's granary (Ibid). In contrast, Masuya, drawing from excavation findings and Marco Polo's travel accounts, argues that the northern part lacked any structures and was instead the site of the Sira Ordu settlement, where royal tents were erected; Marco Polo referred to this location as the Cane Palace (Masuya, 2013: 239-243).

The middle enclosure, known as Huang cheng, measured approximately 1400 by 1400 meters and was situated in the southeastern part of Da cheng, with its eastern and southern walls aligning with those of Da cheng. This area housed the city's Buddhist temples and monasteries, as well as administrative buildings (Steinhardt, 1988: 63). The inner enclosure, referred to as Gong cheng, covered about 605 by 542 meters and was located in the northern third of Huang cheng. This section served as the primary residence of the Khan, featuring the small Da'ange Palace at its center, which was accessible via three main streets leading from the southern, eastern, and western gates. At the northern end of this area stood another large palace with a U-shaped design, identified in historical sources as Muqingge (Steinhardt, 2024: 23) (Fig. 2).

Daidu: The city of Daidu, also known as the winter capital, was established in 1267 AD by Kublai Khan in the northeastern region of China, specifically in Hebei Province (Steinhardt, 1983: 137). Similar to Shangdu, Daidu featured three nested enclosures, with the middle and inner enclosures situated on the southern side of the city.

The outer city, referred to as Da cheng, served as the exclusive area for residential and commercial buildings, encompassing over 2, 600 square meters and containing 11 gates. Except for the northern wall, which had two gates, each of the other three sides featured three gates, with a street approximately 25 meters wide extending from each gate (Steinhardt, 1983: 138; 1999: 155).

The middle enclosure, known as Huang cheng, housed a large artificial lake called Taiyechi. At the center of this lake lies the artificial island of Qionghua, which reportedly contains several small pavilions or Kushks built upon it (Masuya, 2013: 238). Additionally, two notable sites within Huang cheng were located to the west of Taiyechi Lake: The Xingsheng Gong residence in the northwest and the Longfu Gong residence in the southwest (Steinhardt, 1999: 155).

The Khan's residence, or Gong cheng, was situated to the east of the lake. This compound included two large palaces historically referred to as Yanchun ge and Daming dian (Steinhardt, 1983: 138). East of Daming dian was a spacious lawn area known as the Ordus of the Eleven Empresses (Shiyi shi huanghou woerduo), which historical accounts indicate served as a memorial site for the tents of deceased Mongol khans and princes (Masuya, 2013: 238) (Fig. 2).

Yingchanglu: Located two kilometers from Dalai Nur Lake in Inner Mongolia, the remnants of a small imperial city wall from the Yuan era can be observed. This small town, known as Yingchanglu, was established in 1270, approximately 150 kilometers northeast of Shangdu. The city walls measure 650 meters from north to south and 600 meters from east to west, with their sides aligned precisely with the cardinal directions, similar to Shangdu and Daidu. The wall featured three gates located on the eastern, western, and southern sides, with streets extending from each gate toward the city center, effectively dividing the city into three sections or guan. The southwestern and southeastern guans were designated for public and commercial activities, while the larger northern guan housed temples and the inner city. The inner city, measuring 200 by 300 meters, includes three gates facing south, east, and west, with the remains of the main palace occupying a significant portion of its northern area. Additionally, in the northeast, northwest, southeast, and southwest corners of the inner city, there are remnants of four pillarless enclosures that likely served as sites for royal tents (Steinhardt, 1988: 66-68; Steinhardt, 2024: 59-61) (Fig. 2).

Sultaniyya: The city of Sultaniyya, whose present-day remains are situated in northern Iran on the western slopes of the southern Alborz Mountains, was designated as the capital of the Ilkhanid during Öljaitü's reign (1304-1316) in 1304. Construction of the city commenced under Arghun Khan (1284-1291), Öljaitü's father, and after a prolonged pause, resumed during Öljaitü's rule. To date, archaeological excavations have not accurately determined the dimensions and structure of this vast city. Aside from the citadel area in the south, portions of the Shariṣṭān (middle city) to its north and south, the bazaar area, the Grand Mosque in the northwestern section, and the site of the royal camps in the northeastern area, the locations of other urban facilities and the overall dimensions of Sultaniyya remain unknown. However, based on existing studies and historical documents regarding the city's layout, we can make some assumptions about its dimensions.

The city of Sultaniyya, whose outer wall was never completed, was likely designed as a large rectangular settlement. The citadel area, which constitutes the innermost section of the city, is located in approximately the southern two-thirds. Measuring 291 by 319 meters, the citadel was designed so that its sides aligned with the cardinal directions, similar to cities from the Yuan period. Furthermore, the Sultaniyya Citadel featured two gates, located to the north and south. The Royal Street began at the northern gate and extended to the central courtyard of the citadel, serving as the entrance to the palace.

In the southern part of the citadel, there was a charitable foundation complex (abwab al-birr), which included Öljaitü's tomb (Garakani Dashteh and Mortezaie, 2022: 62-66).

The Middle City, or Shariṣṭān, was an area established during the reign of Arghun, covering approximately 12, 000 paces (7, 320 meters), with the citadel situated in its southern third. The northern and northeastern sections of Shariṣṭān housed the palaces of courtiers and likely some government offices. A prominent street traversed this aristocratic neighborhood, leading to the citadel's northern gate. The northwestern and western portions of the shariṣṭān correspond to the lands currently known as the Grand Mosque (Masjid-i Jom'e). These areas were utilized for commercial and religious purposes, including a bazaar and a grand mosque (Hatef Naeimi, 2019: 134-139; Garakani Dashteh and Mortezaie, 2022: 91-92).

The outer city, encompassing an area of about 30, 000 paces (18, 300 meters), completely surrounded both the Shariṣṭān and the citadel. A significant portion of land in the northeastern and northern regions of the outer city was designated as chaman-i Sultaniyya, which likely served as the location for the royal ordu and military camp. Additionally, this expansive area housed a herd of royal horses. The presence of a large volume of pottery, brick, and glass remains at the Finjanabad site in the east, along with extensive remnants of brick and pottery kilns in the southern part of the outer city, suggests that these locations may have functioned as industrial workshops for the city. Other areas could also represent neighborhoods within the city, although there remains limited certainty regarding their precise size and location (Hatef Naeimi, 2019: 144-147; Rezvan Ghahfarokhi and Karimrian, 2017: 96-98) (Fig. 2).

Comparative Urban Morphology: Aq-Qalih and its Contemporaries

This section compares Aq-Qalih's structure to those of other Yuan and Ilkhanid-era cities, using the previously established criteria, organized into four analytical categories.

External Structure and Shape: The initial layout of cities and early settlements in steppe societies was primarily based on a rectangular plot of land enclosed by four walls. Typically, the city gates were positioned in the center of the walls, and streets emanating from these gates divided the city into four sections. This straightforward urban plan was likely influenced by the design of Chinese cities popular during the Han and Tang dynasties. In this configuration, the city's main structure was defined by a square or rectangle, with its sides oriented towards the cardinal directions (Rogers et al., 2005: 811-812). The Aq-Qalih was also designed in accordance with this foundational pattern; however, a significant difference is its 20-degree deviation to the east, which shifts Aq-Qalih from the north-south axis. While this northeast deviation bears some resemblance to the "Ron-i Rasteh" in Iranian architecture², the extent of Aq-Qalih's deviation from the north-south axis is insufficient to align it with the Ron-i Rasteh principles in traditional Iranian architecture and urban planning. Notably, a similar

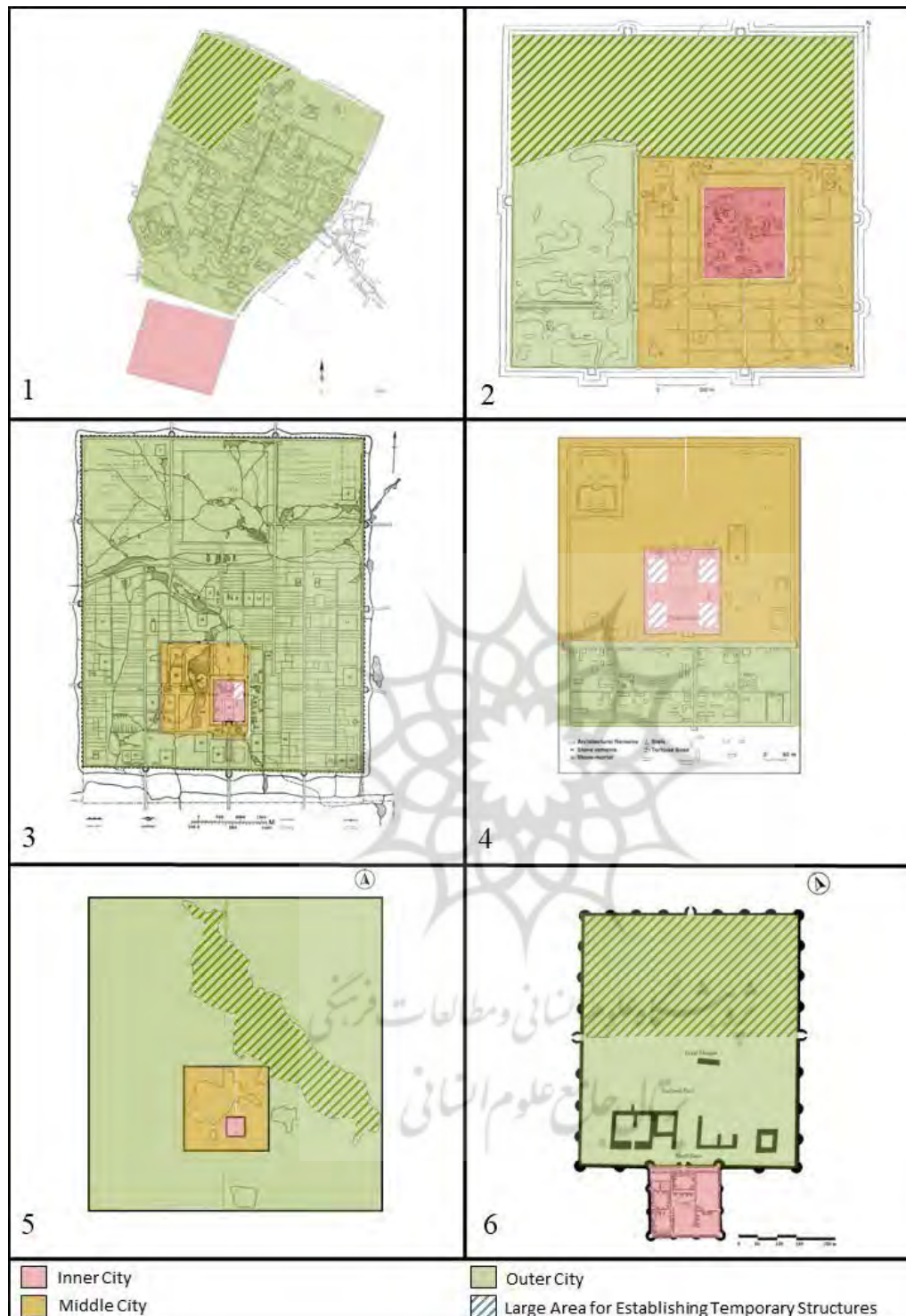


Fig. 2: Comparison of Urban Zoning in the Study Cities; 1. Karakorum (after: Pohl, 2007: 523). 2. Shangdu (after: Steinhardt, 2023: 23). 3. Daidu (after: Steinhardt, 2023: 34). 4. Yingchanglu (after: Steinhardt, 2023: 60). 5. Sultaniyya. 6. Aq-Qalih (Authors, 2024).

degree of deviation from the north-south axis can be observed in the design of the city of Karakorum.

In addition to the regular tetrahedral structure, other examples presented utilize a specific pattern for defining urban areas, which may also reflect the urbanization of

Chinese civilization (Steinhardt, 1999: 160; Hatef Naeimi, 2019: 199). In this model, the city comprises three nested enclosures: the outer city encircles the middle city, which in turn contains the inner city. This pattern is evident in nearly all the examples provided, with the exceptions of Karakorum and Aq-Qalih, which exhibit a distinct design. In these two cities, there are only two enclosed areas; the smaller enclosure, serving as a citadel or the khan's residence, is situated independently outside the larger enclosure. Notably, in both Karakorum and Aq-Qalih, the citadel area is positioned on the south side of the Great Wall. This placement mirrors the traditional arrangement of tents within the yurts of nomadic communities, where, based on ancient beliefs, no structures other than temples or tombs were to be located in the southern area of the khan's residence (Bemmann and Reichert 2021: 14; Franken et al., 2020: 270-271). Besides Karakorum, this pattern can also be observed in older sites such as Khar Khul Khaany Balgas and Khondui (Bemmann and Reichert, 2021: 14). The citadel's connection to the southern wall of the main city in Aq-Qalih creates a more unified appearance compared to Karakorum. This configuration closely resembles that of the central area of Karabalgasun and two other settlements in steppe communities known as Chilen and Khukh Ordung (Pohl, 2007). Bemmann and Reichert, along with Becker, suggest that the citadel's location outside the main city may have been influenced by Central Asian urban patterns, possibly transmitted through Sogdian settlements in the steppes and integrated with earlier quadrangular city designs (Bemmann and Reichert, 2021: 14; Becker, 2012: 55). This hypothesis implies that such a composite form, exhibiting greater structural affinity with cities from these regions, was employed in constructing Aq-Qalih (Fig. 2).

Urban Zoning: During the Yuan period, Chinese cities employed a hierarchical system for urban zoning. In all the examples discussed, the inner city or citadel housed the Khan's palaces and other significant buildings associated with him. Although Aq-Qalih did not exhibit the same hierarchical structure as Karakorum, the citadel can likely be regarded as the Khan's residence.

In contrast to the inner city, the middle city served multiple functions. In cities like Shangdu and Yingchanglu, it was home to the primary temples. In Daidu, the middle city contained the palaces of nobles and relatives of the Khan. Sultaniyya displayed a combination of both functions; its Shariṣtan or Middle City served as both the residence of the nobility and the site of the city mosque, with a bazaar also located there. However, in neither Karakorum nor Aq-Qalih can it be conclusively stated that the large enclosed area functioned as a middle city or fulfilled a role akin to that of an outer city. The presence of a Buddhist temple, market, and industrial area within this section of Karakorum City, along with various neighborhoods, has resulted in a mixed characterization of this area as both a middle city and an outer city. In Aq-Qalih, we only have evidence of the mosque's use at the center of the larger compound, which aligns it with the form seen in Karakorum. Nonetheless, the division of the large enclosed area

in Aq-Qalih into northern and southern sections may indicate a form of zoning system, which we will explore further later on.

The outer city generally served as the site for neighborhoods, markets, and industrial areas. Evidence of these functions can be observed in the outer cities of Shangdu, Daidu, Yingchanglu, and, ultimately, Sultaniyya. However, the presence of a significant site in Shangdu has endowed the city with a role that transcends typical Chinese urban planning. The expansive, barren region in the northern part of the outer city is unique among cities of Chinese civilization up to that time. This area was specifically designated for the deployment of the royal ordu, the establishment of the Khan's tents, and the positioning of soldiers. The allocation of such a large space within the city walls for tents and temporary structures is not exclusive to Shangdu and has a much older precedent. The practice of erecting temporary structures like tents in early steppe societies was common, with substantial portions of cities left unbuilt to accommodate them (Rogers et al., 2005: 813; Rogers et al., 2004: 87). In more advanced cities of these societies, such as Karabalgasun, designated areas were established for temporary structures (Franken et al., 2020: 270). This pattern is also evident in other examples. In Karakorum, a large area to the north of the city likely served as a site for royal ordu tents. In Daidu, the lawn area of the Ordus of the Eleven Empresses was designated for similar purposes. Comparable areas can also be found in the inner city of Yingchanglu. Finally, the expansive Chaman-i Sultaniyya area in the northern part of Sultaniyya's outer city exemplifies this pattern in Iranian cities during the Ilkhanid-era, closely resembling that of Shangdu. Therefore, it can be inferred that the northern area within the main enclosure of the Aq-Qalih was similarly utilized for setting up tents for the royal camp or even for housing royal horses. The lack of construction in this area, its considerable size, and its location in the northern half of the Great Wall similar to Karakorum, Shangdu, and Sultaniyya support this hypothesis.

The construction of masonry structures in the southern half of the main enclosure of Aq-Qalih, in contrast to the northern half, which is devoid of any buildings, has effectively divided the main enclosure into two distinct areas or zones. While it is challenging to definitively assess the uses of this area without extensive excavations, comparisons with other examples, such as Yingchanglu, suggest that this space was likely designated for residential, commercial, and religious purposes. Consequently, although Aq-Qalih does not feature three independent zones like some other cities, the division of the main enclosure into two entirely separate sections effectively creates three functional areas. These areas comprise: the enclosed citadel area located to the south of the main enclosure; the urban area characterized by a pre-designed layout with straight streets and alleys, including a large square in front of the citadel entrance to the south; and the mosque serving as a religious institution in the north. Finally, the northern half of the main enclosure remains free of architectural structures and was intermittently utilized for the erection of temporary structures (Fig. 2).

The Issue of the Mosque's Location: The Grand Mosque held significant importance in the cities of Islamic-period Iran. However, due to the organic development of these cities, it is difficult to ascertain whether the Grand Mosque was centrally located. Evidence from various surviving patterns indicates that, while the Grand Mosque was often not situated at the city's center, it served as a focal point, typically positioned adjacent to the bazaar and, in some instances, near the Dar al-Amara (Habibi, 1999: 42-48). In cities established during the Yuan Dynasty, religious sites were predominantly located in the middle city but did not necessarily serve as the city's focal point (Steinhardt 2023, 14-44). For example, in Karakorum, the great temple, which functioned as a religious focal point, was situated at the southern end of the main city, close to the Khan's palace. In Sultaniyya, the Grand Mosque was located in the middle city area, northwest of the bazaar (Hatef Naeimi, 2019: 134-139).

In contrast to these examples, the mosque's placement in the center of the main enclosure of Aq-Qal'ih on the boundary between the southern and northern enclosures does not align with previous patterns. To understand the rationale behind the location of the Aq-Qal'ih Mosque, we can refer to Nakhjavani's significant report from the Ilkhanid-era. In his account, Nakhjavani detailed the structure of the royal ordus during hunting, travel, and settlement, noting that princes and emirs were positioned on the right side of the ordu, ministers and secretaries on the left, governors accompanying the royal ordu on the north side, and the mosque on the south side. The khan was stationed in the center of the ordu (Nakhjavani, 1976: 62-63). Assuming that the northern lands of Aq-Qal'ih served as the location for the royal ordu and that settlement patterns mirrored Nakhjavani's description, it can be inferred that the mosque was constructed just south of the ordu in accordance with royal customs. It is important to note that in many Mongol cities and towns, such as Avraga in Mongolia (Shiraishi, 2006: 92), the khan was not positioned at the center of the camp but rather within a citadel enclosed by walls. In Aq-Qal'ih, the citadel is located south of the ordu, which aligns with traditional Mongol patterns (Bemmann and Reichert, 2021: 14; Franken et al., 2020: 270-271).

Structure of the Entrance Gates (Gate-Towers): Aq-Qal'ih features three primary entrance gates located in the north, west, and east, positioned centrally along the walls. A notable aspect of these gates is their distinctive structure, which enhances their prominence. The gates were designed as composite structures situated within turrets at the midpoint of the walls. These turrets were constructed to be one-third larger in area than the other turrets, with the gate positioned at their outer apex. This design approach wherein the entrance gates are defined within defensive towers or otherwise concealed has no precedent in the entrances of fortresses or suburban caravanserais in Iran. The only somewhat comparable example is the northern gate of the Sultaniyya Citadel, where the gate structure takes the form of a tower that protrudes from the main wall, with the entrance located at its eastern corner. However, unlike the turrets of Aq-Qal'ih, the entrance building at Sultaniyya is rectangular. This similarity is also

evident in the gates of Shangdu, Daidu, and Yingchanglu. The numerous gates of Shangdu were designed as turrets that extend from the city's walls and can be categorized into two main types. The first group consists of gate-towers built in a quadrangular shape, similar to the Sultaniyya gate-tower. In some instances, the entrance to these gate-towers is centered within the tower, while in others, akin to Sultaniyya, it is located on one side. The second category includes gate-towers with a circular structure, like those at Aq-Qalih. In some of these gate-towers, the entrance is situated at the junction with the main wall, while in others, as with Aq-Qalih, it is found at the outer tip of the tower (Liu, 2023: 63). These two structural types are also present in the design of the gates at Yingchanglu, where the eastern and western gates are semicircular, with entrances located at the junction of the tower and main wall. The southern gate-tower is square-shaped. Similar architectural features can also be observed in the gates of Daidu, exemplified by the remains of the Heyi Gate (Steinhardt, 2024: 30). While the precise origin of this gate design remains uncertain, the history of gate-tower architecture in Chinese cities is ancient, as evidenced by numerous examples found in cities and royal enclosures such as Chang'an, Pingcheng, Bianliang Zhongdu, and Heilongjiang (Steinhardt, 1983: 57, 103, 142; Steinhardt, 2024: 72, 77). Thus, it can be posited that the circular gate-tower design of Aq-Qalih was influenced by a Chinese architectural pattern that may have been introduced to Iran during the Ilkhanid-era. This hypothesis is further supported by the similar construction of the gate-tower at Sultaniyya Citadel (Fig. 3).

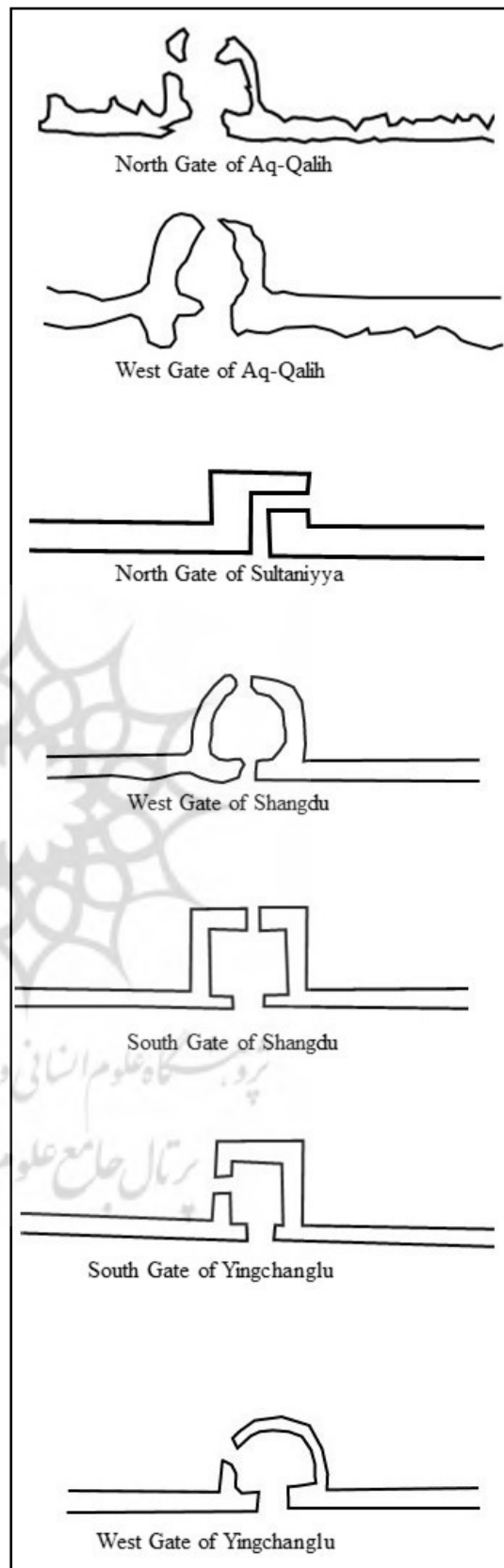


Fig. 3: Schematic designs of the city gates of Aq-Qalih, Sultaniyya, Shangdu, and Yingchanglu, based on aerial imagery (Authors, 2024).

Conclusion

This research aimed to find documentation that would support the hypothesis regarding the construction of the city of Aq-Qalih during the Ilkhanid-era. The primary motivation for this study was the lack of historical documentation to attribute the existing archaeological evidence to the Ilkhanid-era.

The analyses conducted in the first part of this study utilized reports from periodic journeys of the Ilkhanids and their successors in Khorasan, employing ArcGIS software. These analyses revealed that a significant route connecting the wintering areas of the Caspian Sea plain to the summering regions in northern Khorasan passed through the Juvayn Plain. This route gained particular importance in the latter half of the Ilkhanid's rule, as it was frequently used for journeys by the Ilkhanids and their successors in northern Khorasan. Additionally, GIS analyses indicated that Aq-Qalih was strategically situated in the center of this vital route. If we consider Mo'ayedi in Nishapur as one of the winter settlements and Chaman-i Kalpush on the opposing route as a summer settlement, Aq-Qalih would indeed lie at the midpoint of this path. Consequently, it can be inferred that Aq-Qalih had significant potential for establishing a midway settlement, particularly in the latter half of the Ilkhanid's rule.

Comparing the structure of Aq-Qalih with other cities constructed during the Mongol rule in Iran and China reveals important patterns that bolster the hypothesis that Aq-Qalih was built during the Mongol Ilkhans' reign. While the design of Aq-Qalih incorporates elements from ancient Iranian cities specifically, the separation of the main city (Shar) from the ancient citadel the overall structure exhibits similarities to cities built in steppe societies influenced by ancient Chinese models. Notably, Aq-Qalih features a quadrangular layout, with four gates on each side and an alignment of its sides with geographical directions, further aligning its design with those of steppe societies.

Moreover, the division of the city into three distinct zones based on usage, along with the relatively uncommon gate-tower pattern used for its entrance gates, aligns well with patterns observed in Chinese cities popular during the Yuan Dynasty. Aside from the placement of the citadel relative to the main enclosure reflecting patterns typical of steppe societies the existence of a vast and barren area for temporary structures makes Aq-Qalih more akin to cities established by these societies. This expansive area within the northern half of the main enclosure not only reinforces the hypothesis that Aq-Qalih was constructed during the Ilkhanid-era but also suggests its significant royal status, as such structures are typically found in major royal cities or towns utilized by important princes.

Finally, the absence of references to this fortress in historical accounts can be attributed to the timing of its construction. According to the mosque inscription, Aq-Qalih was built in 1312, during the reign of Öljaitü. This date coincides with the period when his crown prince, Abu Sa'id, assumed control over the province of Khorasan. Abu Sa'id was the last significant Ilkhan of the Mongol dynasty in Iran. In contrast to his descendants, there are only sparse and limited records regarding the periodic

journeys that occurred during his reign, including their routes and timings, as well as the constructions carried out under his orders. This scarcity can be linked to the onset of a chaotic period that began immediately after his death, during which civil wars among Mongol nobles ultimately led to the decline of the Ilkhanid dynasty. It is likely that the project to construct Aq-Qalih commenced prior to Abu Sa'id's rule at a site that was once one of the important Ilkhanid encampments in northern Khorasan, with its completion coinciding with the start of his reign in the region. The construction of this fortress during a time of increasing unrest in Khorasan, alongside numerous attacks by the Chagatai Khanate, appears logical. Following Abu Sa'id's death and the subsequent collapse of the Ilkhanid, this large royal fortress likely remained unused and gradually fell into abandonment. Any occasional settlements there, particularly during the late Afsharid and Qajar periods in Khorasan, can be viewed as exceptions in its historical narrative.

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Observation Contribution

This article was completed collaboratively and with the equal cooperation of all authors.

Conflict of Interest

In adherence to ethical publication standards, the authors affirm that there are no conflicts of interest, either personal or financial, that could have influenced the content or conclusions presented in this research.

Endnote

1. This date corresponds to the ninth year of Öljaitü's reign and the beginning of Abu Sa'id Bahadur Khan's rule as crown prince in Khorasan. Abu Sa'id's governorship in Khorasan, coinciding with a period of frequent Chagatai Khanate attacks, was exceptionally turbulent (Hafiz-i Abru, 2018: 566-571).

2. The Ron-i Rasteh is one of the three traditional standard orientations in the design of Iranian houses and cities, aligning more closely with the Qiblah (Pirnia and Memarian, 2008: 136).

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بررسی پیشینه شهر آق‌قلعه خراسان، با نگاهی به روند سفرهای دوره‌ای ایلخانان و ساختارهای شهری دوره یوآن

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چکیده

دژ تاریخی آق‌قلعه در دشت جویین واقع در شمال خراسان، سازه‌ای بسیار عظیم و کمتر شناخته شده است که برمبنای مطالعات محدودی که تاکنون انجام گرفته، می‌توان فرض کرد که در دوره ایلخانان مغول، احداث شده است؛ با این حال، برمبنای مستندات تاریخی مربوط به دوره ایلخانان، نمی‌توان تعلق این دژ به این دوره را تأیید کرد؛ زیرا این مستندات مطلقاً هیچ اطلاعاتی درباره وجود چنین دژی در دشت جویین ارائه نکرده‌اند. بر همین مبنا، اتکای نگارندگان برای پذیرش فرضیه احداث آق‌قلعه در دوره ایلخانان، تنها مستندات باستان‌شناسی و همین‌طور کتیبه تاریخ‌دار مسجد آق‌قلعه است. این پژوهش برای اولین بار قصد دارد تا با اتکا به بررسی مسیر حرکت‌های دوره‌ای ایلخانان در شمال خراسان، برمبنای بررسی مستندات تاریخی و همین‌طور بهره‌گیری از تحلیل GIS، میزان اهمیت آق‌قلعه را در طول این مسیر به عنوان یک استقرارگاه میان‌راهی روشن سازد؛ همچنین، با مقایسه ساختار آق‌قلعه با شهرها و شهرک‌هایی که تقریباً در یک دوره در چین و ایران در سرزمین‌های تحت نفوذ مغولان، احداث شده‌اند، فرضیه تعلق این دژ به دوره ایلخانان را بررسی کند. نتایج این بررسی نشانگر آن است که آق‌قلعه در میان یکی از مهم‌ترین مسیرهای حرکت‌های دوره‌ای ایلخانان در شمال خراسان قرار داشته و مراجعه سالانه ایلخانان و جانشینان آن‌ها به این ناحیه، احتمال ساخت استقرارگاهی میان‌راهی در این نقطه را افزایش می‌دهد. همچنین مقایسه ساختار آق‌قلعه با نمونه‌های مشابه در چین، همانند شانگدو، دایدو و یینگ‌چنگ‌لو و همچنین سلطانیه در ایران، گویای وجود شباهت‌های بسیار زیادی است که سبب تقویت فرضیه احداث آق‌قلعه در دوره ایلخانان می‌شود.

کلیدواژگان: ایلخانان، دوره یوآن، سفرهای دوره‌ای، شهرسازی، GIS، خراسان، چین.



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مقدمه

در شمال سبزوار و در جنوب اسفراین در میان دشت جویین، بقایای سازه عظیمی قرار دارد که امروزه با نام «آق قلعه» شناخته می‌شود. محوطه این قلعه از دو حصار چسبیده به هم تشکیل شده است؛ حصار بزرگ‌تر که در سمت شمال قرار دارد و ابعادی در حدود ۷۰۰×۶۰۰ متر داشته و حصار کوچک‌تر که به ضلع جنوبی حصار بزرگ چسبیده، با ابعادی در حدود ۱۶۸×۱۷۳ متر، به نظر ارگ یا کهن دژ قلعه می‌آید. تباین میان مستندات تاریخی و شواهد باستان‌شناسی یکی از بزرگ‌ترین ابهامات درباره تاریخ ساخت آق قلعه را شکل داده است. براساس این مستندات متباین، به طور قطع نمی‌توان مطمئن بود که این سازه عظیم، تماماً در زمان ایلخانان برپا شده باشد؛ همچنین بر مبنای این مستندات می‌توان این احتمال را مطرح نمود که ساختار کنونی، در اواخر دوره تسلط افشاریان بر خراسان، بر روی بقایای کهن یک استقرارگاه متعلق به دوره ایلخانی به این شکل احداث شده است. این پژوهش قصد دارد تا با بررسی مجدد مستندات تاریخی دوره ایلخانی، احتمال حضور استقرارگاهی بزرگ در این ناحیه را در این زمان مورد سنجش قرار دهد؛ همچنین قصد دارد تا با انجام مقایسه میان ساختار دژ آق قلعه با سایر ساختارهایی که هم‌زمان با آن در سایر مناطق تحت تسلط مغولان احداث شده بود، احتمال ساخت آن در دوره ایلخانان را بار دیگر مورد ارزیابی و بررسی قرار دهد.

پیشینه پژوهش

گزارشی که «لباف خانیکی» (۱۳۶۷) از گمانه‌زنی در محوطه آق قلعه ارائه کرده را می‌توان اولین بررسی انجام شده درباره سابقه این دژ عنوان کرد. نتایج این گمانه‌زنی حاکی از آن است که بخش‌های مسکونی تنها در قسمت جنوبی دژ قرار داشته و سکونت در این قسمت از دوره ایلخانی آغاز شده و پس از سقوط ایلخانان تا دوره صفوی متروک بوده است؛ پس از آن، «محمود بختیاری‌شهری» (۱۳۷۵) در گزارشی که با هدف ثبت محوطه آق قلعه ارائه کرده، چندین پلان از وضع موجود قلعه و همچنین مسجد آن ارائه کرده است. «هاتف نایمی» (۲۰۱۹) در رساله دکترای خود، ضمن معرفی مختصر مجموعه آق قلعه، با تکیه بر گزارش‌های پیشین که به آن‌ها اشاره شد، ساختار آق قلعه را با ساختار ارگ سلطانی که در زمان «اولجایتو» احداث شده، مقایسه کرده است.

جایگاه آق قلعه در سفرهای دوره‌ای ایلخانان در خراسان

بر مبنای نتایج به دست آمده از تحلیل‌های GIS می‌توان احتمال داد که مسیر عبوری از شمال ایران به سمت شمال خراسان در زمان ایلخانان، به صورت عمده مبتنی بر دو جاده اصلی بوده است؛ جاده اول، مسیری بوده است که مناطق قشلاقی واقع در جنوب شرقی دریای کاسپین را از طریق مسیری که از شمال کوهپایه‌های البرز می‌گذشته، ضمن عبور از سملقان و شیروان، به خوشان و رادکان متصل می‌ساخته است. جاده دوم، مسیری بوده که از جنوب کوهپایه‌های البرز و از میان دشت جویین می‌گذشته است. این مسیر که عمدتاً از جاده جاجرم به کالپوش، جهت اتصال به مناطق جلگه‌ای دریای کاسپین استفاده می‌کرده، هم در مسیر ارتباطی با نیشابور قرار داشته و همین‌طور، به خوشان و رادکان، به عنوان شهرهای مهم ناحیه شمال خراسان، دسترسی داشته است. بر مبنای نتایج، می‌توان چنین فرض کرد که شاه‌راهی که از قسمت جنوبی کوهپایه‌های البرز عبور می‌کرده، از نزدیک منطقه‌ای می‌گذشته که بقایای امروزی آق قلعه در آن واقع شده است. این مسیر که یکی از دو جاده اصلی بوده که مناطق قشلاقی جنوب شرقی جلگه دریای کاسپین را به مناطق بیلاقی شمال خراسان مرتبط می‌ساخته، براساس گزارش‌ها، در نیمه دوم حکومت ایلخانان مورد توجه و استفاده قرار داشته است.

بحث و تحلیل

طرح اولیه شهرها و اقامتگاه‌های اولیه‌ای که در جوامع استپیی احداث شده‌اند عمدتاً مبتنی بر یک زمین مستطیل شکل بوده که چهار دیوار، آن را احاطه می‌کرده است. دروازه‌های شهر به صورت معمول در میان دیوارهای شهر قرار داشته و خیابان‌هایی که از این دروازه‌ها آغاز می‌شدند، شهر را به چهار بخش تقسیم می‌کردند. محوطه آق قلعه نیز تقریباً مطابق با این الگوی اولیه طراحی شده است. تنها تفاوت چشمگیر در مقایسه با دیگر نمونه‌های ذکر شده، انحراف ۲۰ درجه‌ای به سمت شرق است که محوطه را از راستای شمالی-جنوبی منحرف ساخته است.

شهرهای چینی دوره یوان از نظام سلسله‌مراتبی در منطقه‌بندی شهری استفاده کرده‌اند؛ و شهرها عمدتاً به سه بخش شهر داخلی، شهر میانی و شهر بیرونی تقسیم می‌شده‌اند. با این که آق قلعه همانند دیگر شهرهای مورد اشاره از سه پهنه مستقل از یک دیگر برخوردار نبوده، اما تقسیم حصار بزرگ به دو بخش کاملاً مجزا، به گونه‌ای دیگر، این شهر را به سه پهنه تقسیم می‌کرده است؛ این سه پهنه، شامل این موارد بوده‌اند: محوطه محصور ارگ در جنوب حصار بزرگ، محوطه شهری و در نهایت نیز نیمه شمالی محوطه حصار بزرگ که فاقد هرگونه سازه معماری بوده و برای برپایی سازه‌های موقت به صورت دوره‌ای به کار می‌رفته است.

آق قلعه دارای سه دروازه ورودی اصلی در جهات شمالی، غربی و شرقی است که درست در میانه دیوارها قرار دارند. نکته مهم درباره این دروازه‌ها، ساختار آن است که آن‌ها را به صورت ویژه‌ای برجسته ساخته است. دروازه‌های آق قلعه به صورت ساختاری مرکب در داخل برجک‌های طراحی شده‌اند که در میانه دیوارها قرار داشته‌اند. در طراحی این برج دروازه‌ها، برجک‌ها از نظر مساحت یک-سوم بزرگ‌تر از برجک‌های دیگر احداث شده و دروازه درست در رأس بیرونی آن‌ها قرار می‌گرفته است. این مشابهت را به صورت تأثیربرانگیزی می‌توان در طراحی دروازه‌های شانگدو، دایدو و همین‌طور یینگ‌چنگ‌لو نیز مشاهده کرد. دروازه‌های متعدد شانگدو نیز همانند برجک‌هایی که از دل دیوارهای این شهر عظیم بیرون زده، طراحی شده بوده‌اند. بر این مبنا، می‌توان احتمال داد که طراحی ورودی‌های آق قلعه به صورت برج دروازه‌های مدور، متأثر از الگویی چینی بوده که شاید در زمان ایلخانان به ایران وارد شده است. تبعیت از این الگو در ساخت برج دروازه ارگ سلطانی می‌تواند مؤید این فرضیه باشد.

نتیجه‌گیری

تحلیل‌هایی که در بخش اول این پژوهش با اتکاء بر گزارش‌های سفرهای دوره‌ای ایلخانان و جانشینان آنان در خراسان با کمک نرم‌افزار GIS arc انجام گرفت، گویای آن است که یکی از راه‌های مهمی که مناطق زمستان‌نشین جلگه دریای کاسپین را به مناطق تابستان‌نشین در شمال خراسان متصل می‌کرده، از میان دشت جویین می‌گذشته است. این مسیر به صورت ویژه در نیمه دوم حکومت ایلخانان، اهمیت بیشتری یافته است. تحلیل‌های GIS همچنین نشان داد که آق قلعه درست در میانه این مسیر مهم قرار داشته است.

مقایسه ساختار آق قلعه با ساختار سایر شهرهایی که در زمان حکومت مغولان در ایران و چین احداث شده بودند، وجود الگوهای مهمی را برجسته می‌سازد که فرضیه احداث آق قلعه را در زمان حکومت ایلخانان مغول تقویت می‌کند. با این که در طراحی آق قلعه از ساختارهای کهن شهرهای ایرانی، یعنی جدا بودن شار اصلی از کهن دژ بهره گرفته شده است، اما مشابهت ساختار اصلی آن، یعنی استفاده از فرم چهارگوش، داشتن چهار دروازه در هر سمت، منطبق بودن تقریبی اضلاع با جهات جغرافیایی در طراحی حصار اصلی آق قلعه، ساختار آن را بیش از پیش به شهرهایی که در جوامع استپی و تحت تأثیر الگوی شهرهای کهن چینی ساخته می‌شده، شبیه ساخته است؛

علاوه بر این موارد، تقسیم شهر به سه پهنه متفاوت از نظر کاربری و همین‌طور بهره‌گیری از الگوی تقریباً نادر برج‌دروازه در طراحی دروازه‌های ورودی، کاملاً منطبق با الگوی شهرهای چینی است که ساخت آن‌ها در زمان خاندان یوآن رواج داشته است؛ به غیر از نوع استقرار ارگ نسبت به حصار که با الگوهای شهرهای جوامع استپی دارای مشابهت است، وجود محوطه‌ای وسیع و بایر جهت برپایی سازه‌های موقت، آق‌قلعه را بیش‌ازپیش به شهرهایی که توسط این جوامع احداث شده بودند شبیه ساخته است.

سپاسگزاری

در پایان نویسندگان برخود لازم می‌دانند از داوران ناشناس نشریه که با نظرات ارزشمند خود به غنای متن مقاله افزودند، قدردانی نمایند.

درصد مشارکت نویسندگان

مقاله حاضر به صورت مشارکتی و با همکاری هر دو نویسنده به صورت یکسان و برابر به انجام رسیده است.

تضاد منافع

نویسندگان ضمن رعایت اخلاق نشر در ارجاع‌دهی، نبود تضاد منافع را اعلام می‌دارند.

